

AMENDMENTS TO THE TITLE

Please amend the title of the invention as follows:

~~ADAPTIVE IMPEDANCE MATCHING-CAPABLE MOBILE RADIO APPARATUS~~
CAPABLE OF ADAPTIVE IMPEDANCE MATCHING

AMENDMENTS TO THE SPECIFICATION

Please amend [0308] paragraph on pages 114-115, as follows:

[0308] Next, the control section 105 reverses any one switch in the matching circuit 400, and sets the received power obtained by it to RSSI2 (Step S2306). Incidentally, reversing the switch means switching on/off of the switch. However, if all the switches in the serial variable load section 410 are turned off by reversing one switch, the control section 105 decides not to reverse the switch.

Please amend [0414] paragraph on page 148, as follows:

[0414] FIG. 50 is a diagram illustrating an example of the initial load value table of the use condition for DTV. As the typical use condition of the mobile radio apparatus 9, there are, for example, a situation when there is the mobile phone in a free space apart from a human body, a situation when the mobile phone is used with a single hand, a situation when the mobile phone is used with both hands, and a situation when the mobile phone is used while being put on a desk. In FIG. 50, the initial load values AD(1), AD(2), ~~and AD(3), and AD(4)~~ are defined corresponding to these use situations.

Please amend [0447] paragraph on page 158, as follows:

[0447] The load value received power table after the second generation will be completed by the operation at Steps S3101 and S3102. FIG. 57 is a diagram illustrating an example of the load value received power table after the second generation. As shown in FIG. 57, the load values BW(2), BW(3), BW(4), and BW(5) are the load values registered at Step S3101, and are the same as the load values EW(1), EW(2), EW(3), and EW(4) in the load value table after mutation. The load value BW(1) is the load value registered at Step S3102, and is the load value which could obtain the highest received power in the load values EW(1), EW(2), EW(3), and EW(4). Herein, it is assumed that the load value BW(1) is the same as the load value ~~EW(3) and BW(4)~~. Hence, the received powers RSSI5 and RSSI8 have the same value.

Please amend [0497] paragraph on pages 172-173, as follows:

[0497] As is understood, according to the eleventh ~~first~~-embodiment, if the change of the

received power is detected, and if the function to be used is changed, the control section 105a first applies the varactor voltage to the matching circuit 102 using the load value stored in the initial load value table of the use situation corresponding to respective functions. If there is an initial load value which can provide the appropriate received power, the control section 105a applies the varactor voltage corresponding to this initial load value to the matching circuit 102 to thereby match the impedance. Meanwhile, if there is no initial load value which can provide the appropriate received power, the control section 105a evolves the initial load value, and operates so as to obtain the appropriate load value. The control section 105a preferentially selects a load value with high received power among the initial load values in the case of evolution of the initial load value. Hence, the initial load value can be evolved to the appropriate load value in a short time. Consequently, the impedance matching will be performed quickly. As a result of this, since the impedance can be always controlled adaptively in various environments where the antenna is placed, a loss due to a mismatching loss can be reduced, so that the mobile radio apparatus which can always obtain the stable received power will be provided.